FINDINGS OF FACT
STAFF REPORT

Date:	September 25, 2006	OPRD Coastal Land Use Coordinator:	Tony Stein		
OPRD File Number:	BA-611-06	County:	Lincoln	Applicant: Sandpiper Unit Owner's Association	

Project Location:	1815-1905 NW Harbor Drive, Lincoln City, OR Lincoln County Assessor's Map # 07-11-10 DB, tax lots 402, 4800 and Beach Walk.
Brief Project Description:	The proposed project involves the construction of a riprap revetment at the base of the oceanfront bluff using 1,600 cubic yards of riprap and a rock blanket of smaller pit-run material sloped upward to the edge of the bluff top. The total length of the project is approximately 205 feet in length, and the rip rap revetment is approximately 25 feet in height above beach level, with a slope of 1.5H to 1 V. The proposed riprap revetment will extend 10 feet seaward of the existing riprap structure onto the ocean shore, and tie into the adjacent riprap revetment to the south that has been previously permitted (OPRD Permit #BA-369-95). The proposed project includes three properties: 1) Authier house, 2) City of Lincoln City "Beach Walk" easement, and 3) the Sandpiper Condominiums.

ADMINISTRATIVE RULE STANDARDS AND RELEVANT FACTS

I. GENERAL STANDARDS, OAR 736-020-0010

Project Need – There shall be adequate justification for a project to occur on and alter the ocean shore area.

According to the permit application and the accompanying Engineering Geologic and Geotechnical Exploration Report, by Ash Creek Associates (March 10, 2006), the new riprap revetment and proposed pit run fill above the revetment is necessary to control erosion and prevent additional slope land sliding and bluff undermining that may damage the upland structures. The two structures currently range from 0 feet at the north corner of the Authier home to 12 feet at the Sandpiper Condominiums situated east of the 80-foot high bluff. Overall shoreline retreat rates are estimated at approximately 0.60 feet +/ – 0.3 ft per year, although the report does not note any recent evidence of slumping or land sliding at the toe of the slope or undermining of the upper bluff slope specific to this location. The date of construction of the existing riprap is unknown, and over time it has stabilized and slowed the estimated erosion rates at this location. Because bluff top erosion is directly related to removal of the bluff toe by wave action, the existing riprap rap revetment and established vegetation

has provided a measure of protection for the lower bluff and a degree of stabilization of the upper bluff, thus reducing any immediate threat to the existing structures. However, the existing rip rap revetment is failing and in disrepair, and a reconstructed structure using an engineered design will reduce future bluff toe erosion and accelerated upper bluff erosion for the life of the revetment.

A finding of project need follows the review of all other applicable standards and is included in the findings summary at the end of this report.

Protection of Public Rights – Public ownership of or use easement rights on the ocean shore shall be adequately protected.

The proposed riprap revetment will increase the width of the existing riprap structure along the base of the bluff approximately 10-foot seaward onto the ocean shore. This encroachment onto the ocean shore is similar to the existing riprap immediately south of the project site. Normally the beach at this site is quite wide, so public recreational uses should not be affected under normal conditions. The presence of the riprap will not affect public ownership or easement rights on the ocean shore.

Public Laws – The applicant shall comply with federal, state, and local laws and regulations affecting the project.

The Lincoln County Planning Division has certified that the project is in compliance with the Lincoln County Comprehensive Plan and Land Use Code. State of Oregon regulations are being addressed under the review of this permit. Federal regulations could potentially involve a U.S. Army Corps of Engineers permit, however a Corps permit is usually not required for this type of project. A condition of the permit will require that the applicant obtain any required permits from the Corps, if applicable.

Alterations and Project Modifications – There are no reasonable alternatives to the proposed activity or project modifications that would better protect the public rights, reduce or eliminate the detrimental affects on the ocean shore, or avoid long-term cost to the public.

The applicant states that the Authier house could potentially be moved, but no costs or information on moving the structure was provided in the geologic report prepared by Ash Creek Associates. The home is approximately 750 square feet in size and it appears that adequate room exists for moving the house eastward and also providing for off street vehicle parking. The City of Lincoln City is not participating in the proposed project and has not provided any information or shown interest in protecting the public easement known as the "Beach Walk". Any future beach access or "Beach Walk" improvements proposed by The City of Lincoln City would require substantial engineering and would be very expensive. The Sandpiper Condominiums consists of a large 3 story structure with a substantial wing addition on the north side of the property, and the cost of moving the building eastward would be prohibitive, with limited parking options. No costs from a licensed contractor to move the Sandpiper building were included in the geologic report. OPRD agrees with the applicant that this option is unfeasible due to the impracticality and high cost.

The geologic report rules out non-structural methods of shore protection against wave attack, including vegetative stabilization, sand alteration, composite revetments, dynamic revetments, primarily based on the high energy wave environment along this section of coastline. Vegetative stabilization or sand alteration would not be sufficient to substantially slow or halt erosion, or to stabilize the bluff slope. Dynamic revetments are not recommended for the site due to the frequent exposure to wave attack. The proposed riprap will not entirely eliminate all landslide risk, but will control erosion and undermining of the lower bluff slope, that is one of the primary causes of upper slope failure. Erosion from wind, rain, and larger failures could impact the upland structures, and additional measures to protect the upper bluff may be necessary at some point in the future. The geologic report recommends placing a 3 foot thick blanket of 2" minus pit run rock on the slopes,

beginning at the top of the revetment and extending to the top of the bluff. This action would eliminate all of the established vegetation covering the full length and width of the project area above the new revetment up to the area just below the vertical scarp on the Sandpiper property. This would also cover all of the vegetation that is currently providing erosion control and slope stabilization from the toe of the slope to the top of the bank on the Authier property and City of Lincoln City easement. A previous attempt at this type of solution to protect the upper bluff has resulted in very little or no revegetation occurring at the site. OPRD believes that a new riprap revetment below the Sandpiper Condominiums is a necessary initial step to controlling land sliding and controlling erosion from wave attack at the base of the bluff.

Considering these factors, the use of riprap shore protection constitutes the most reasonable option as the initial step for controlling erosion at this site.

Public Costs – There are no reasonable special measures which might reduce or eliminate significant public costs. Prior to submission of the application, the applicant shall consider alternatives such as nonstructural solutions, provision for ultimate removal responsibility for structures when no longer needed, reclamation of excavation pits, mitigation of project damages to public interests, or a time limit on project life to allow for changes in public interest.

Alternative shore protection methods other than riprap shore protection have been discussed above. Moving the Authier house may be a reasonable option, and researching other solutions to control erosion on the vertical scarp along the upper bluff for the City of Lincoln City easement and the Sandpiper condominiums is a preferred option. A potential public cost from shoreline stabilization projects is the "locking up" or prevention of beach sand supply that would have been contributed from the eroding bluff. The geologist, in his report, states that the additional loss of sand to the beach will be minimal during the life of the revetment because of the relatively slow rate of bluff retreat. This amount of sand lost over this project is insignificant when compared to the millions of cubic yards of sand found within the littoral cell. The primary cost to the public will be the loss of approximately 2000 square feet of beach area west and near the beach zone line.

Compliance with LCDC Goals – The proposed project shall be evaluated against the applicable criteria included within Statewide Planning Goals administered by the Department of Land Conservation and Development.

Lincoln County has certified that the project is in compliance with the Lincoln County Comprehensive Plan and Land Use Code, which are acknowledged by LCDC as meeting the Statewide Planning Goal requirements.

II. SCENIC STANDARDS, OAR 736-020-0015

Projects on the ocean shore shall be designed to minimize damage to the scenic attraction of the ocean shore area.

***Natural Features – The project shall retain the scenic attraction of key natural features, for example, beaches, headlands cliffs, sea stacks, streams, tide pools, bedrock formations, fossil beds and ancient forest remains*.**

The natural features of the beach in the general vicinity will remain intact, and no significant landforms such as headlands, sea stacks, or streams will be affected. The riprap revetment will be placed at an elevation of about 25 feet in height above the beach level. The scenic quality of the bluff face would be altered under the proposal, which recommends covering the existing vegetation with a pit run rock base and planting beach grass and other vegetation above the new riprap revetment for approximately 55 feet (lineal length) to the crest of the bluff.

Shoreline Vegetation – The project shall retain or restore existing vegetation on the ocean shore when vital to scenic values.

With the exception of the vertical scarp found on the upper bluff below the Sandpiper Condominiums, there is extensive established vegetation above the existing riprap structure. A thick and highly established vegetative cover also exists on the City of Lincoln City and Authier properties. The geologic report recommends that the existing slope not be disturbed, and the upper bluff could be stabilized by building a pit-run rock fill from the top of the new revetment to the crest of the existing bluff. It also recommends covering only the riprap revetment with a sand blanket and planting with beach grass, and leaving the pit-run fill area as the soil base for vegetative replanting up to top of the 80' bluff slope. OPRD believes that the success of establishing and maintaining a vegetated structure over the long term is unproven, due to the steepness of the slope, the permeable nature and the coarseness of pit-run rock material to support plant growth. A past attempt (BA# 366-94) at revegetating this type of slope with the proposed design and materials has been unsuccessful over a ten year period.

View Obstruction – The project shall avoid or minimize obstruction of existing views of the ocean and beaches from adjacent properties.

The riprap will not affect existing views from adjacent properties.

Compatibility with Surroundings – The project shall blend in with the existing shoreline scenery (type of construction, color, etc.).

The proposed project would blend the new rip rap revetment below the Sandpiper Condominiums into an adjacent riprap structures to the south. Under the proposed vegetation plan, if vegetation were established it would match other properties to the south that also have shoreline protection structures and established beach grass slopes.

III. RECREATION USE STANDARDS, OAR 736-020-0020

Recreation Use – The project shall not be a detriment to public recreation use opportunities within the ocean shore area except in those cases where it is determined necessary to protect sensitive biological resources such as state or federally listed species.

The riprap will occupy some beach area, but will not significantly affect public recreation use opportunities. During storm events or winter high tides, wave run-up may reach the riprap structure. During normal conditions, however, the existence of the riprap will not be a detriment to typical recreation uses.

Recreation Access – The project shall avoid blocking off or obstructing public access routes within the ocean shore area except in those cases where it is determined necessary to protect sensitive biological resources such as state or federally listed species.

The project will not extend out onto the ocean shore to cause an obstruction to public access along the shoreline during normal ocean conditions.

IV. SAFETY STANDARDS, OAR 736-020-0030

The project shall be designed to avoid or minimize safety hazards to the public and shoreline properties. The following safety standards shall be applied, where applicable, to each application for an ocean shore permit.

Structural Safety – The project shall not be a safety hazard to the public due to inadequate structural foundations, lack of bank stability, or the use of weak materials subject to rapid ocean damage.

The proposed design indicates that the riprap will be structurally safe and not an obstructional hazard. Rocks will be placed individually to form an interlocking structure, as is the standard practice for revetment design.

Obstructional Hazards – the project shall minimize obstructions to pedestrians or vehicles going onto or along the ocean shore area.

The beach at this site is typically quite wide, and the proposed riprap is not expected to obstruct pedestrians or vehicles during normal ocean conditions.

Neighboring Properties – The project shall be designed to avoid or minimize ocean erosion or safety problems for neighboring properties.

The proposed riprap will tie into the existing riprap revetment that extends into the property from the south. No adverse impacts are expected to neighboring bluff areas to the north.

Property Protection – Beachfront property protection projects shall be designed to accomplish a reasonable degree of increased safety for the on-shore property to be protected.

The purpose of the revetment is to provide protection to the upland properties.

V. NATURAL AND CULTURAL RESOURCE STANDARDS, OAR 736-020-0030

Projects on the ocean shore shall avoid or minimize damage to the following natural resources, habitat, or ocean shore conditions, and where applicable, shall not violate state standards:

Fish and wildlife resources including rare, threatened or endangered species and fish and wildlife habitats.

There are no reported fish and wildlife resources that will be impacted by the proposed project.

Estuarine values and navigation interests.

The project is not adjacent to an estuary, and does not affect navigable water on the ocean.

Historic, cultural and archeological sites.

Notice of the application was provided to the State Historic Preservation Office, and to the Confederated Tribes of Siletz and the Confederated Tribes of Grand Ronde. There were no reports of historic, cultural, or archeological sites at this location.

Natural areas (vegetation or aquatic features).

The proposed project would completely cover up the existing vegetation above the new riprap revetment with pit run rock and eliminate the potential for revegetation.

Air and water quality of the ocean shore area.

The project will take place above the ordinary high tide line, and will not cause foreign materials or pollutants to enter the water. Riprap placed at the site will be free of debris or foreign materials. The proposed project does

not adversely affect water quality on the ocean shore. Air quality will not be affected, except for a negligible amount of exhaust from the use of heavy equipment during the construction period.

Areas of geologic interest, fossil beds, ancient forest remnants.

None of these features have been identified at the site.

When necessary to protect native plant communities or fish and wildlife habitat on the subject or adjacent properties, only native, non-invasive, plant species shall be used for revegetation.

The site is within a developed residential area, and there are no known protected native plant communities or fish and wildlife habitat on or adjacent to the subject property.

VI. PUBLIC COMMENT

Notice of the proposed project was posted at the site for 30 days in accordance with ORS 390.650. Individual notification and a copy of the application were mailed to government agencies and individuals on OPRD's ocean shore mailing list. OPRD received 2 comments in opposition to the request, two of which requested a public hearing. A public hearing was not held, as the required threshold of 10 written requests was not reached.

VII. Findings Summary

Project Need – The proposed riprap is necessary to provide protection from ocean-caused erosion and bank slumping at the Sandpiper Condominiums property. The main concern is the vertical scarp below the Sandpiper Condominiums, but the applicant has provided only one alternative to stabilizing the upper bluff. In photos taken from the adjacent property in 1995 (BA# 369-95), the vertical scarp appears to be stable with minor erosion, and has maintained most its current features, including the wooden retaining wall since that time. Other alternative solutions were not addressed in the application and may provide the protection necessary to control the upper bluff erosion for all properties. The engineering design as stated in the geologic report recommends using pit-run fill and replanting for the upper bluff, which will impact the scenic features of this area by eliminating the existing vegetation. Replanting on top of pit-run soil is unproven in its ability to revegetate and match adjacent areas. This portion of the proposed engineering design can be addressed at a later date if the upper bluff continues to recede to a point that the Sandpiper structure becomes compromised. Need for the riprap revetment at the base of the bluff to protect the Sandpiper Condominiums is justified.

The Authier home has well established vegetation from the toe of the slope to the top of the bank with the exception of one small area where land sliding is occurring. The immediate need for shoreline protection for the Authier property is unjustified at this time because of minimal land sliding and slumping of the lower bluff. As well, relocating the house may be a reasonable alternative due to the small size and available space east of the home.

The City of Lincoln City "Beach Walk" also has well established vegetation from the toe of the slope to the top of the bank with the exception of the vertical scarp that extends to the south across the Sandpiper property. The immediate need for shoreline protection for the "Beach Walk" property is unjustified at this time because of no structure currently exists on the property and because of minimal land sliding and slumping of the lower bluff.

Based on the above considerations, OPRD finds that there is adequate justification for the Sandpiper Condominiums to construct a rip rap revetment without the pit-run fill area, to occur on and alter the ocean shore area.

The following checklist summarizes whether the application satisfies the general, scenic, recreation, safety and natural and cultural resource standards as defined in OAR 736-020-0010 through 736-020-0030:

Standard	Yes	No	Standard	Yes	No
Project Need	☒	☐	Structural Safety	☒	☐
Protection of Public Rights	☒	☐	Obstructional Hazards	☒	☐
Public Laws	☒	☐	Neighboring Properties	☒	☐
Alteration and Project Modifications	☒	☐	Property Protection	☒	☐
Public Costs	☒	☐	Fish and Wildlife Resources	☒	☐
Compliance with LCDC Goals	☒	☐	Estuarine Values and Navigation Interests	☒	☐
Natural Features	☒	☐	Historic, Cultural and Archeological Sites	☒	☐
Shoreline Vegetation	☒	☐	Natural Areas	☒	☐
View Obstruction	☒	☐	Air and Water Quality of the ocean shore	☒	☐
Compatibility with Surroundings	☒	☐	Areas of Geologic Interest	☒	☐
Recreation Use	☒	☐	Use of Native Plant Species when Necessary	☒	☐
Recreation Access	☒	☐		☒	☐

VIII. STAFF RECOMMENDATION:

Based on an analysis of the facts and in consideration of the standards evaluated under OAR-736-020-0005 through OAR 736-020-0030, I recommend the following action:

☐ Approval

☒ Approval with conditions

☐ Denial

Tony Stein,
Coastal Land Use Coordinator